

Incorporating Food Systems into Planning

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Helping strengthen the food economy
of Central New York



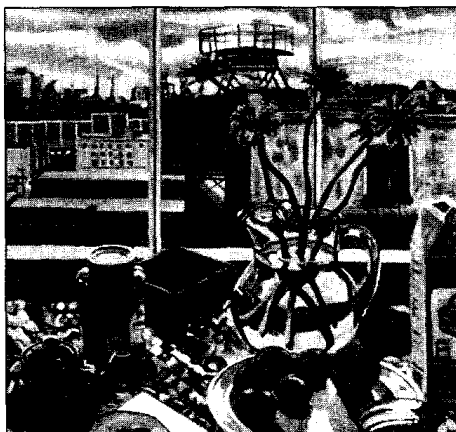
Scope:

- ___ Purposes for food system planning
- ___ Precedents and current practice
- ___ FoodPlanCNY Project Overview
- ___ Approaches to food system planning –
assessment, engagement
- ___ Challenges and Opportunities



Increased public awareness around food and food issues





The Food System

A Stranger to the Planning Field

Kameshwari Pothukuchi and Jerome L. Kaufman

TABLE 1: Planners' involvement in the food system, top 10 issues.

Issue	Agencies reporting involvement	Significant involvement	Moderate involvement	Minimal involvement
Location of supermarkets, grocery stores, fast food outlets, and food wholesaling	20	8	6	6
Design of food outlets	18	8	5	5
Community gardens	12	1	4	7
Studies of impact of food sector on local economy	11	1	4	6
Farmers' markets, food festivals, etc.	10	3	6	1
Food issues addressed in neighborhood plans	10	0	4	6
Food related economic development	10	4	2	4
Food issues addressed in comprehensive plans	6	0	2	4
Hunger prevention programs	5	0	2	3
Agricultural land preservation	3*	0	2	0

*One agency official did not rate the significance of the activity.

Why?

Perception that there is not a problem
markets full of produce

“Food is an agricultural issue not urban”

“What can planners do? Who can we collaborate with?”

“Where’s the funding?”

Emerging Practice:

Over the past decade, the food system has enjoyed increased attention from planners and policy makers.

Scholars, activists, practitioners, planners, and policy makers engage in various efforts to assess the environmental, economic, and social (including public health) impacts of the food system and used planning to strengthen the food system (Clancy 2004; Jacobson 2008; Freedgood, et al 2011; Meter 2010, 2011; Pothukuchi & Kaufman 1999, 2007).

Why do food system planning?

The market alone is not working

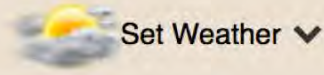
- social, health and environmental externalities
- concentration and lack of transparency

Planners have skills and stake in the food system

- land use, spatial, multi-sectoral/systems thinking

Effective means of addressing economic, public health,
and environmental imperatives

Opportunities to have positive local impacts
in relation to globalized system



Disabled, other customers of soon-to-close Nojaim's dread to other groceries

Updated Sep 12, 2017; Posted Sep 12, 2017

Updated Nov 14, 2017



THE V

BANKRUPTCY

Tops Markets Files for Protection

Stores to stay open during bankruptcy

G&C Food Distributors expanding, adding jobs in Van Buren

NY taking steps so that no student goes hungry (Commentary)

Updated Feb 26; Posted Feb 26





Recognition of opportunities . . .

Central New York Regional Economic Development Council

- CNY agribusiness output: \$2.9 billion in 2013
- Agribusiness \$53 billion annual economic benefit to NYS
- CNY: 3500 farms + 200 food processing companies employ 4000 people

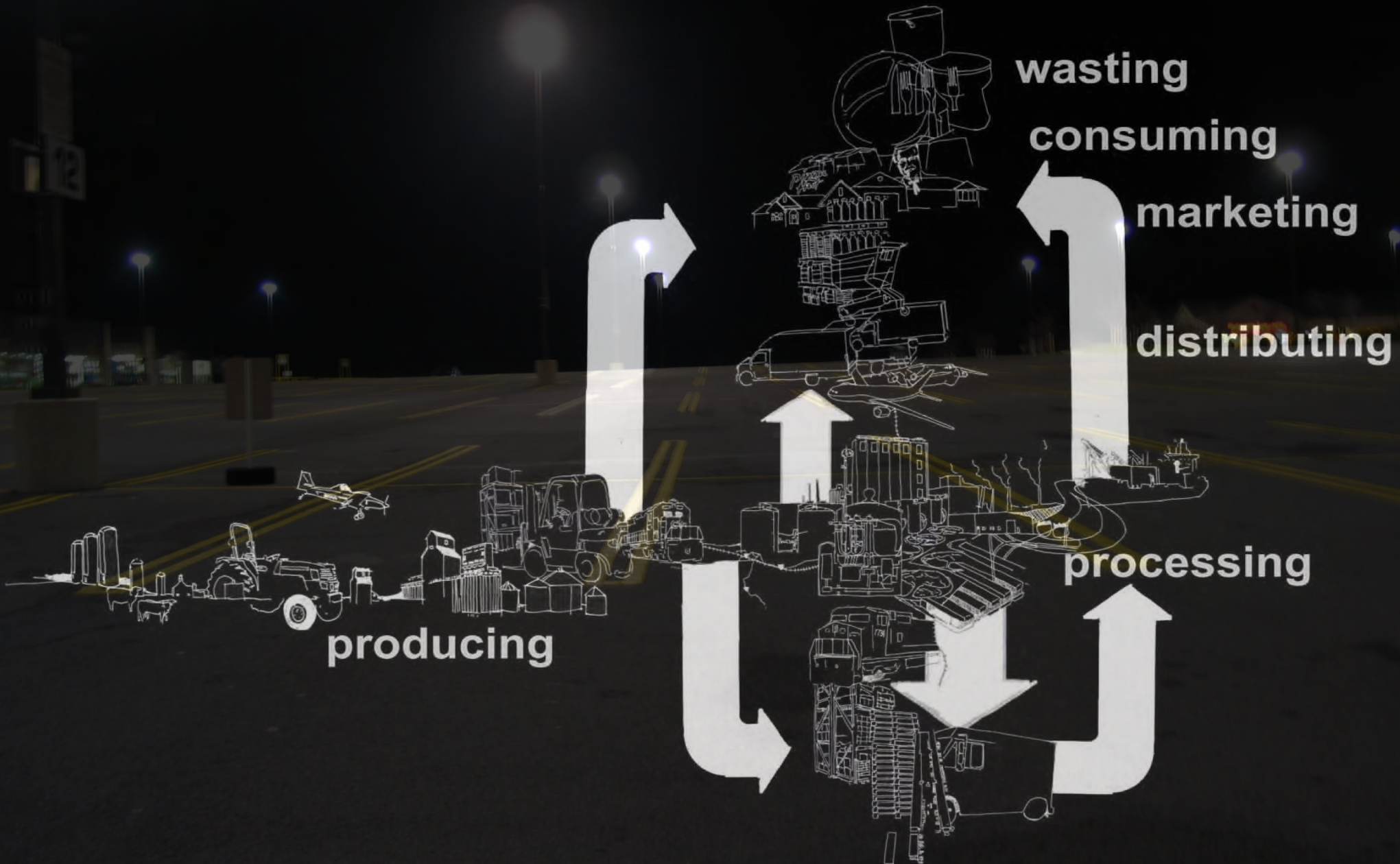
EXCELLENCE IN AGRIBUSINESS: Cayuga Milk Ingredients

Cayuga Milk Ingredients, a CNYREDC Round 1 grant recipient, has been operating at full capacity in its new 106,000 square foot milk processing facility since January 2015. The facility has been, and is capable of processing 1,800,000 pounds of whole raw milk per day. The facility's dairy products will be exported to new emerging markets in Europe, Oceania and Asia. As a result of the project, the company has already created 55 new jobs, exceeding its employment commitment.



. . . misses key connections

What is a food system?



Food systems and landscape systems

Linked to other systems:

Ecology

Transportation

Housing

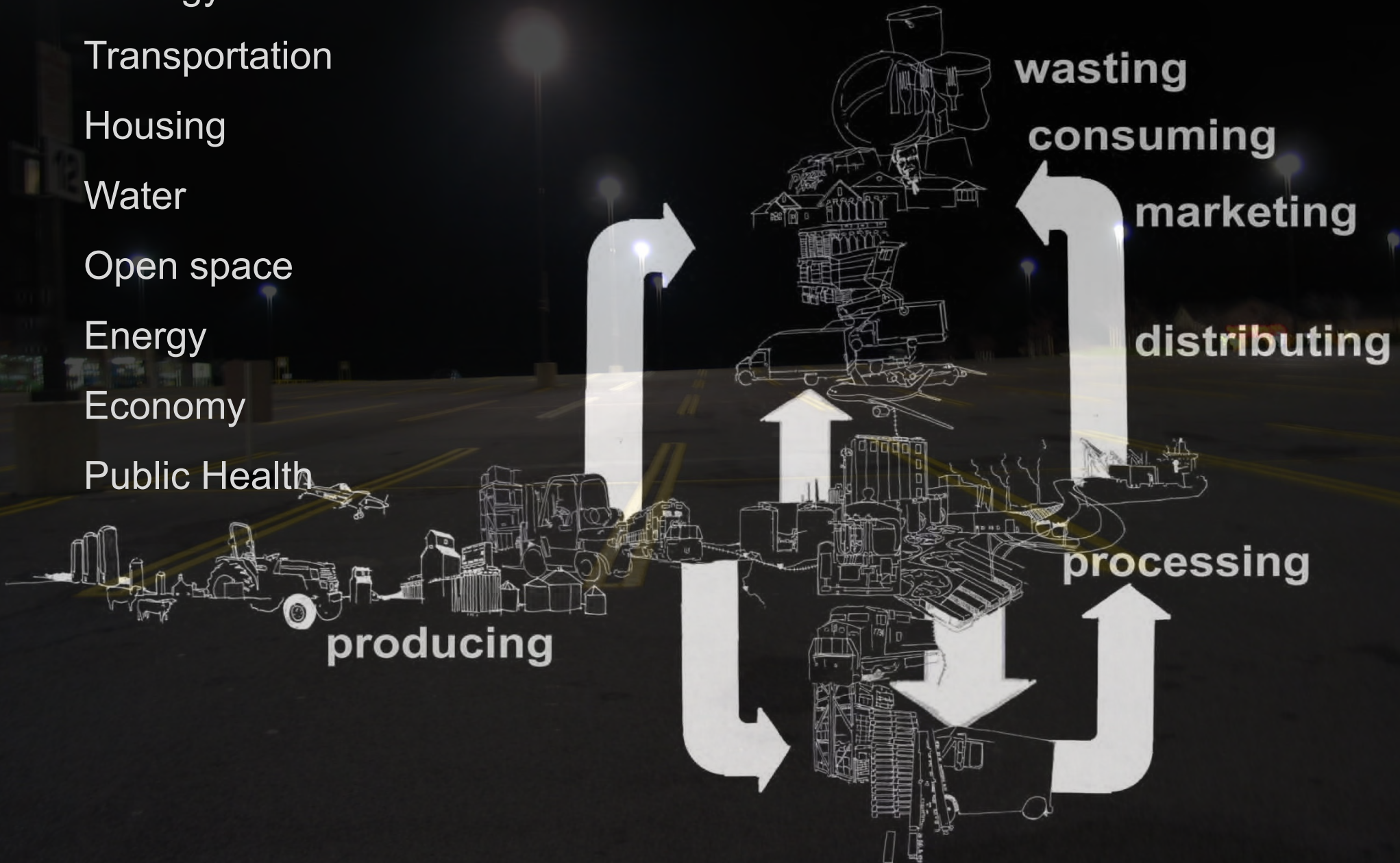
Water

Open space

Energy

Economy

Public Health



Multiple approaches to food system planning:

1. Local or Regional Foodshed Assessment
2. Comprehensive Food System Assessment
3. Community Food Security Assessment
4. Community Food Asset Mapping
5. Food Desert Assessment
6. Land Inventory Food Assessment
7. Local Food Economy Assessment
8. Food Industry Assessment

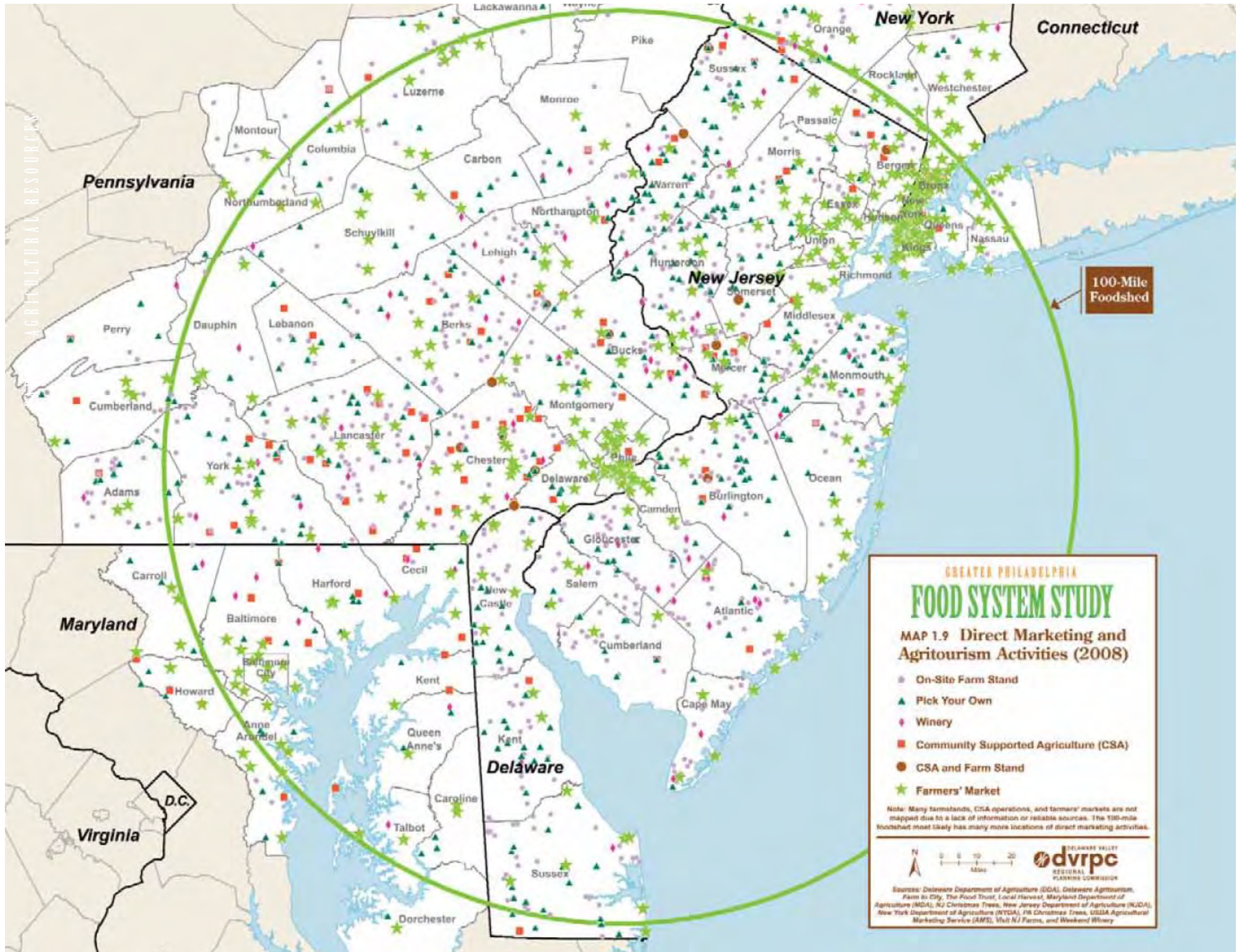
January 2010



GREATER PHILADELPHIA

FOOD SYSTEM STUDY





100-Mile Foodshed

GREATER PHILADELPHIA
FOOD SYSTEM STUDY

MAP 1.9 Direct Marketing and Agritourism Activities (2008)

- On-Site Farm Stand
- ▲ Pick Your Own
- ◆ Winery
- Community Supported Agriculture (CSA)
- CSA and Farm Stand
- ★ Farmers' Market

Note: Many farmstands, CSA operations, and farmers' markets are not mapped due to a lack of information or reliable sources. The 100-mile foodshed most likely has many more locations of direct marketing activities.



Sources: Delaware Department of Agriculture (DDA), Delaware Agritourism, Farm to City, The Food Trust, Local Harvest, Maryland Department of Agriculture (MDA), NJ Christmas Trees, New Jersey Department of Agriculture (NJDA), New York Department of Agriculture (NYDA), NJ Christmas Trees, USDA Agricultural Marketing Service (AMS), Visit NJ Farms, and Weekend Winery

COMMUNITY FOOD ASSESSMENT

LEWISTON, MAINE 2013



Good Food Council of Lewiston-Auburn

FINDINGS/WHERE RESIDENTS BUY FOOD



Fast Food Restaurants

Research focused on fast food restaurants because they are an important part of the local food environment. Fast food restaurants typically offer inexpensive and fast, yet unhealthy food. There are 43 fast food restaurants in Lewiston.

89% of single-parent households live within 0.5 miles of at least three fast food restaurants. These restaurants are the quickest and closest sources of prepared food for Lewiston residents, often making it a difficult choice to buy more expensive, yet healthier food. In the map at right, the areas in red and gold indicate where most single-parent families live. The map shows that fast food restaurants are concentrated in these areas.

Fast Food Restaurants in Relation to Single-Parent Households

Note: See explanation of single-parent designation on map on Page 11.

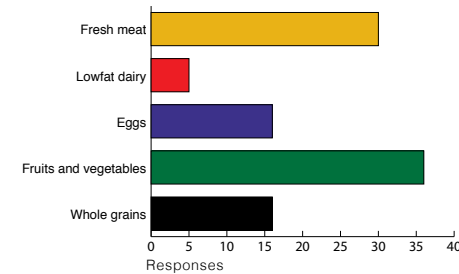
Source: Neil Reid; Jay D. Gatrell; Paula S. Ross. 2012. 13 Characterization of the Built Food Environment for Single Parent Households in an Older Industrial City, Lewiston, Maine. In Local Food Systems in Old Industrial Regions. 252-274. Farnham, Surrey: Ashgate.



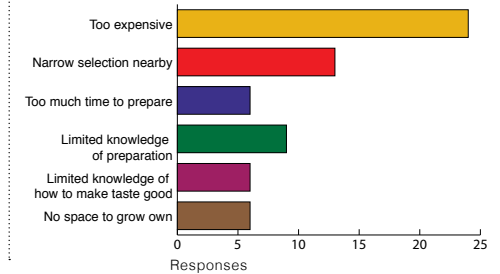
Consumer Preference & Challenges

In 2011, Bates student Rebecca Dugan conducted a survey of 36 downtown food consumers in Lewiston to learn about shopping patterns and obstacles to obtaining healthy food. The survey revealed the following:

Survey question: **What type of healthy food do you want more of?**



Survey question: **What discourages you from buying healthy food?**



Source: Dugan, Rebecca. Neighborhood Stores as Food Access Points: Lewiston Consumer Preferences and Challenges. Bachelor's Thesis, Bates College, Lewiston: Unpublished, 2011.

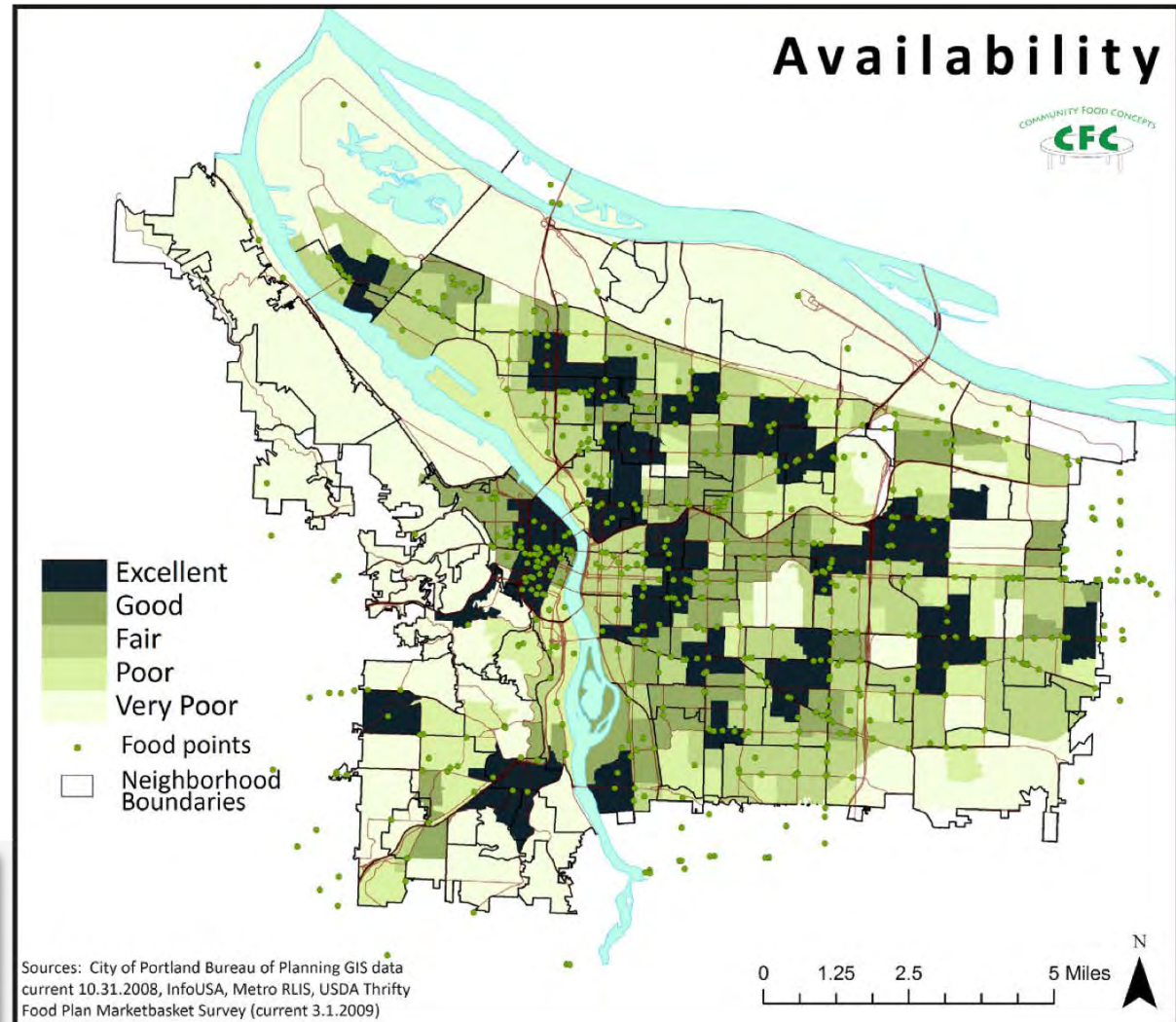
AVAILABILITY

Presence of sufficient quantity of foods needed for meeting the consumer's dietary requirements.

The availability score is essentially a measure of the variety of a food point's offerings. Its contribution to an area's food access, or Foodability, is based on the premise that a greater variety of foodstuffs enables consumers to find foods suited to their personal preferences and dietary habits. For retail food points, the availability score was calculated as a percent of market basket survey list items present, plus percent of total 'variety points'. For non-retail food points—emergency food outlets and community gardens—scores were assigned based on estimated ability of users to get foods matching their personal preferences. (Consult Appendix F for a detailed explanation.) Block groups were assigned availability scores based on the maximum availability score of all the food points within the block group.

"The City can't control what is on the shelf, but the store can tell a story with its products."

- Visioning participant



Map 4: Availability of food points by block group, based on the market basket survey.

Foodability: visioning for healthy food access, Portland OR

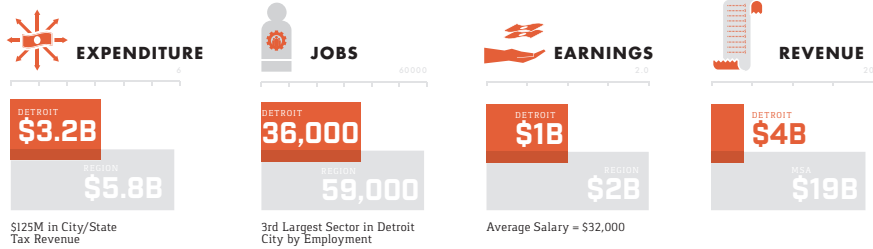


ECONOMIC IMPACT OF DETROIT'S FOOD SYSTEM

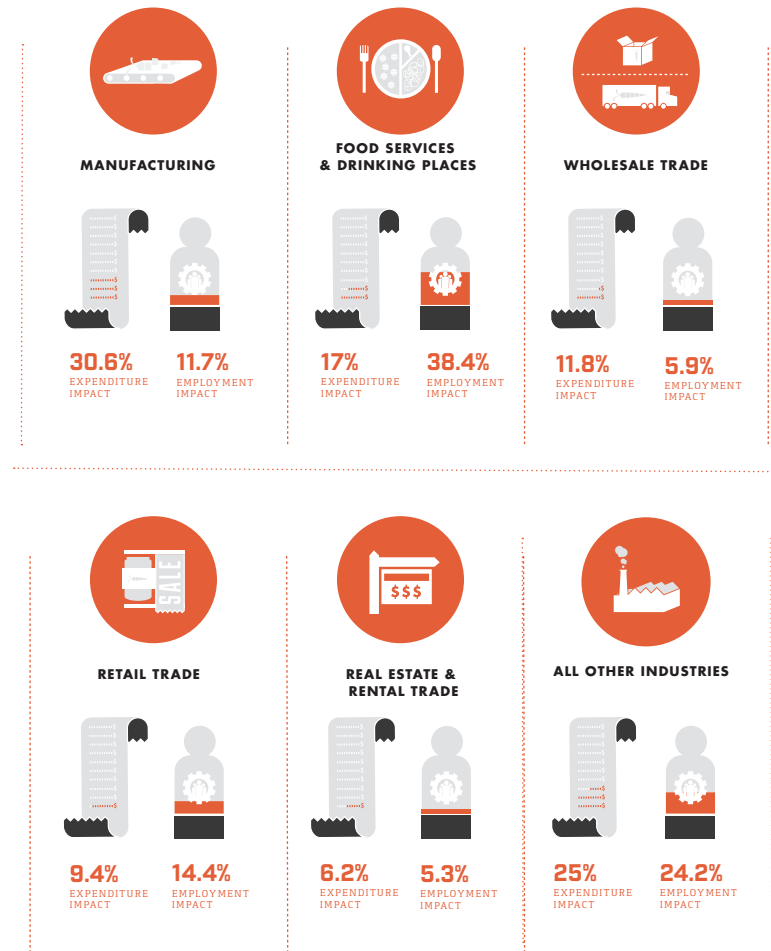
ON THE THREE COUNTY REGION, BY SECTOR, ESTIMATED, ANNUALLY

ECONOMIC IMPACT CATEGORY	ECONOMIC IMPACT WITHIN THE REGION
Direct Expenditures	\$3.2 B
Indirect and Induced Expenditures	\$2.6 B
Total Expenditures	\$5.8 B
Total Employment	59,000
Total Wages & Salaries	\$2.0 B
Average Annual Salaries	\$32,000

ECONOMIC IMPACT OF DETROIT'S FOOD SYSTEM



ECONOMIC IMPACT BY SECTOR



Our approach to food system planning:

1. Local or Regional Foodshed Assessment
2. Comprehensive Food System Assessment
3. Community Food Security Assessment
4. Community Food Asset Mapping
5. Food Desert Assessment
6. Land Inventory Food Assessment
7. Local Food Economy Assessment
8. Food Industry Assessment



FoodPlanCNY

_baseline assessment

_coordination

_public engagement

Question: How do we develop a framework for coordinating food system efforts in Central New York through an inclusive process, bringing together representatives from different sectors of the food system, along with community organizations and government agencies to address critical food system issues including public health, economic opportunities, and environmental quality?

Progress report.



Approach: Food System Assets

Onondaga County is fortunate to have many existing food system assets, but also fails to fully appreciate its assets and has yet to leverage these assets for social, environmental, and economic well-being.



Approach: Food System Assets

“How can you pursue policy if you’re not really thinking about what’s happening . . . You have to value the assets you have. You have to first identify them, and then really value them” (Interview, June 2016).



Project Overview

Working to develop a framework for coordinating the food system of Central New York through a participatory planning process that identifies key food system assets:

1. Baseline Assessment

Secondary + Archival Data
Mapping

2. Key Informant Interviews (n=54)

3. Review/engagement

Focus Groups – Stakeholder meetings

4. Website (report + engage)

5. Public Report (spring 2018)

The outcome of the project will be a *Food Systems Plan* that provides a baseline assessment of strengths and opportunities and outlines a collaborative framework for food system governance.



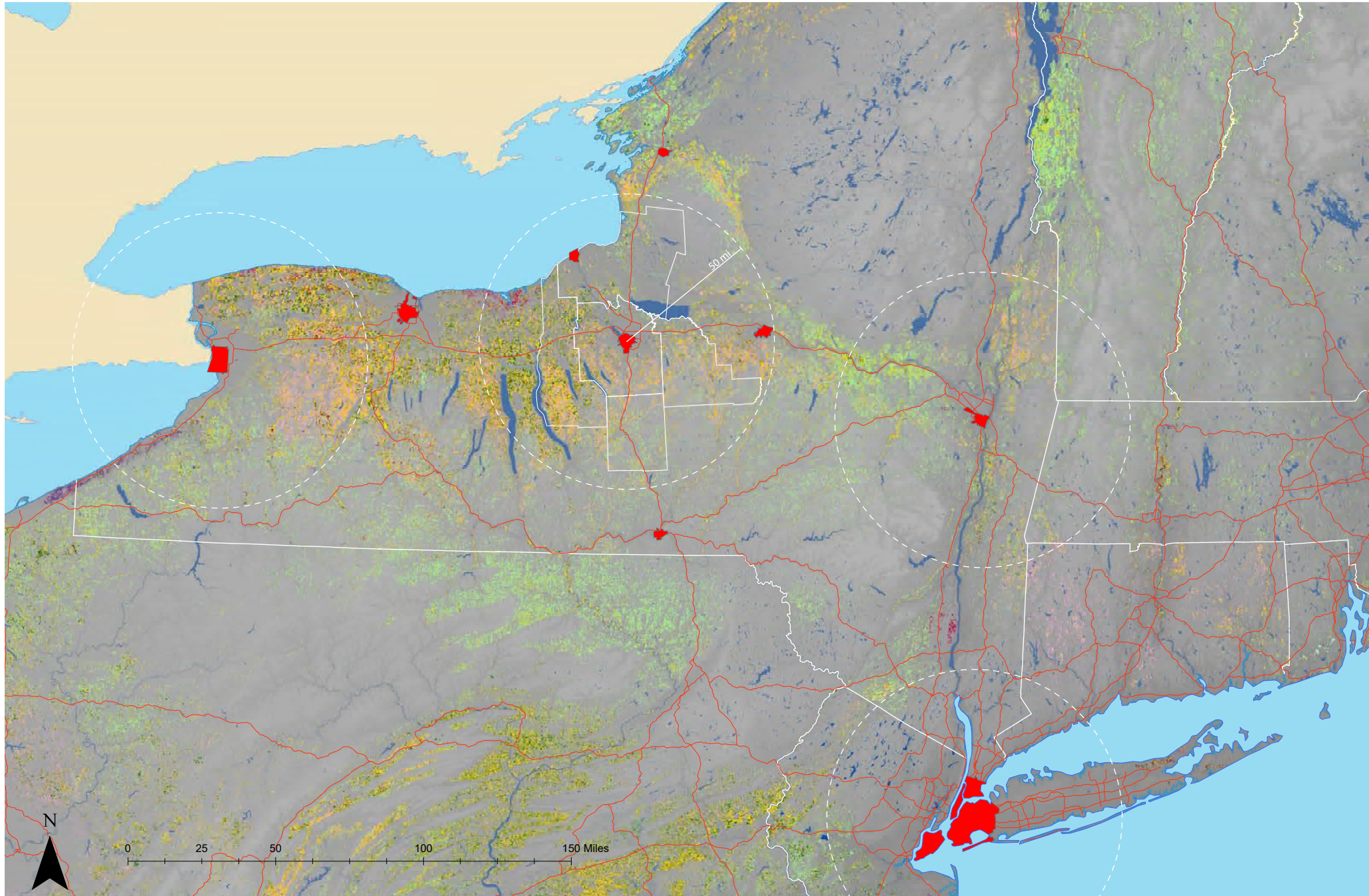
Challenges

- information/data (accessibility; consistency)
- complexity
- coordination



Review of baseline assessment/mapping

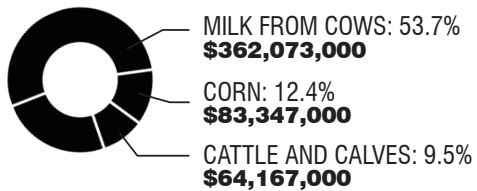
Key Indicators approach



TOP PRODUCTS PRODUCED PER COUNTY

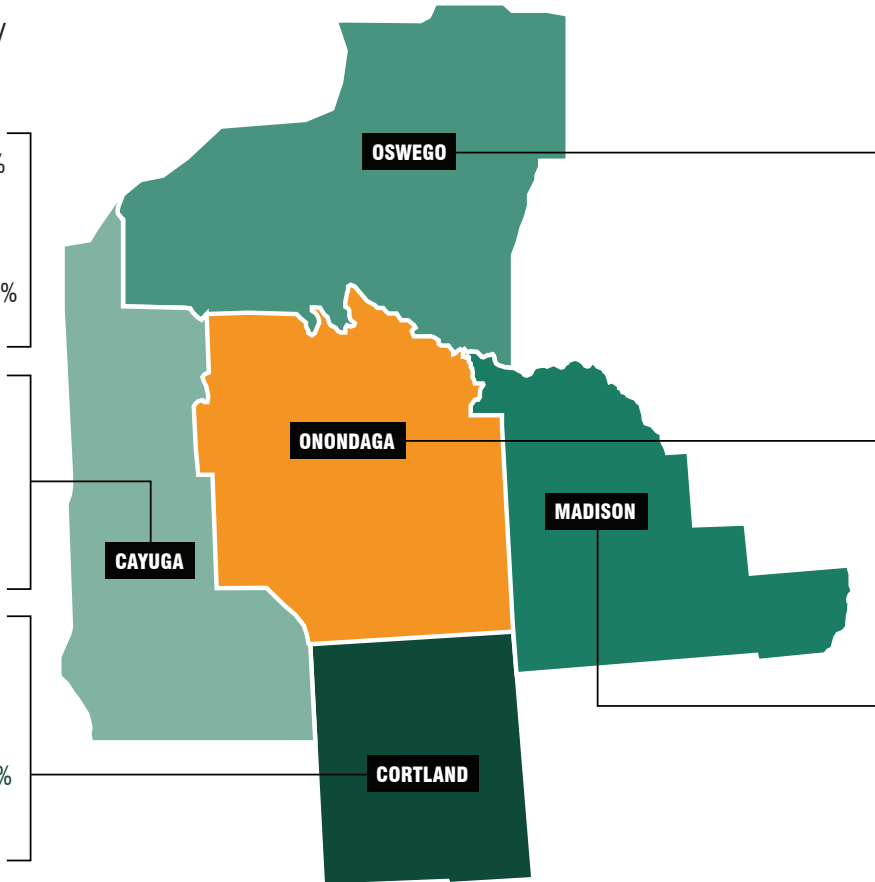
CAYUGA/ CORTLAND/ MADISON/
OSWEGO/ ONONDAGA

5 COUNTY TOTAL



- 1 MILK FROM COWS: 54.0%
\$158,794,000
- 2 CORN: 14.3%
\$41,895,000
- 3 CATTLE AND CALVES: 9.7%
\$28,574,000

- 1 MILK FROM COWS: 66.3%
\$41,700,000
- 2 CORN: 9.0%
\$5,626,000
- 3 OTHER CROPS AND HAY: 8.5%
\$5,380,000



- 1 CATTLE AND CALVES: 34.3%
\$16,369,000
- 2 VEGETABLES, MELONS,
POTATOES AND SWEET POTATOES: 21.3%
\$10,132,000
- 3 MILK FROM COWS: 15.2%
\$7,252,000

- 1 MILK FROM COWS: 52.3%
\$79,508,000
- 2 CORN: 12.0%
\$18,613,000
- 3 POULTRY AND EGGS: 9.0%
\$13,771,000

- 1 MILK FROM COWS: 63.5%
\$74,819,000
- 2 CORN: 11.6%
\$13,674,000
- 3 CATTLE AND CALVES: 8.2%
\$9,705,000

CROP DIVERSITY

CAYUGA / CORTLAND / MADISON /
OSWEGO / ONONDAGA

5 COUNTY TOTAL



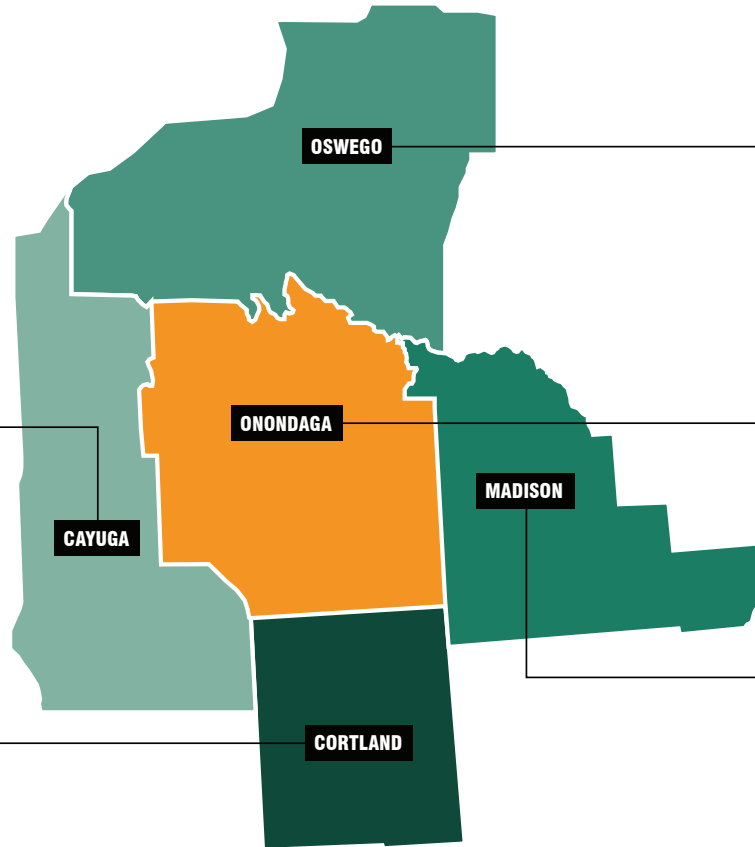
VEGETABLES, MELONS,
POTATOES AND SWEET POTATOES: 5.18%
\$15,359,000

FRUITS AND TREE NUTS: 0.69%
\$796,000

BERRIES: 0.24%
\$423,000

- 1 VEGETABLES, MELONS,
POTATOES AND SWEET POTATOES: 5.2%
\$15,359,000
- 2 FRUITS AND TREE NUTS: 0.3%
\$796,000
- 3 BERRIES: 0.1%
\$423,000

- 1 VEGETABLES, MELONS,
POTATOES AND SWEET POTATOES: 1.1%
\$697,000
- 2 BERRIES: 0.2%
\$135,000
- 3 FRUITS AND TREE NUTS: 0.1%
\$31,000



- 1 VEGETABLES, MELONS,
POTATOES AND SWEET POTATOES: 21.3%
\$10,132,000
- 2 FRUITS AND TREE NUTS: 3.9%
\$1,876,000

- 1 VEGETABLES, MELONS,
POTATOES AND SWEET POTATOES: 4.4%
\$6,767,000
- 2 FRUITS AND TREE NUTS: 1.3%
\$1,934,000
- 3 BERRIES: 0.01%
\$863,000

- 1 VEGETABLES, MELONS,
POTATOES AND SWEET POTATOES: 1.6%
\$1,946,000
- 2 BERRIES: 1.5%
\$171,000
- 3 FRUITS AND TREE NUTS: 0.5%
\$53,000

DIRECT SALES CAYUGA/ CORTLAND/ MADISON/ OSWEGO/ ONONDAGA/ TOTAL 5 COUNTY AREA

VALUE OF **DIRECT SALES** vs.
TOTAL SALES IN 2012 ...



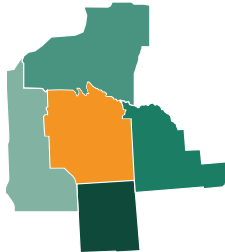
\$3,318,000 IN DIRECT SALES

\$152,050,000 IN TOTAL SALES



**2.8% OF TOTAL
SALES IN
ONONDAGA
WERE FROM
DIRECT SALES.**

VALUE OF DIRECT SALES **ONONDAGA** vs. **5
COUNTY AREA** ...



\$3,318,000 IN DIRECT SALES

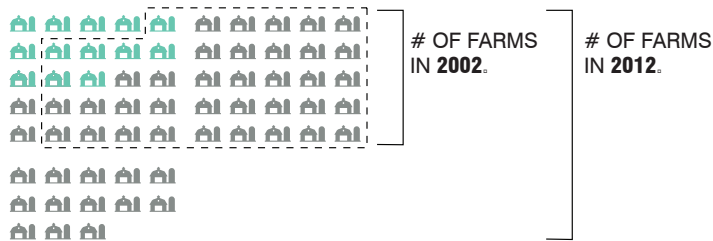
\$9,517,000 IN DIRECT SALES



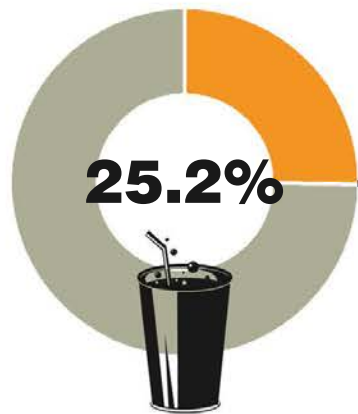
**ONONDAGA CONTRIBUTED
35% TO THE TOTAL
PROFIT MADE IN
DIRECT SALES
FOR THE
5 COUNTY AREA.**

NUMBER OF **FARMS** PARTICIPATING
IN **DIRECT SALES**...

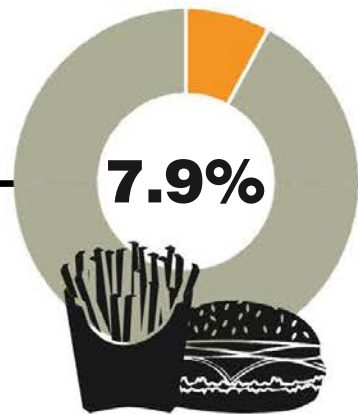
 = 10 FARMS



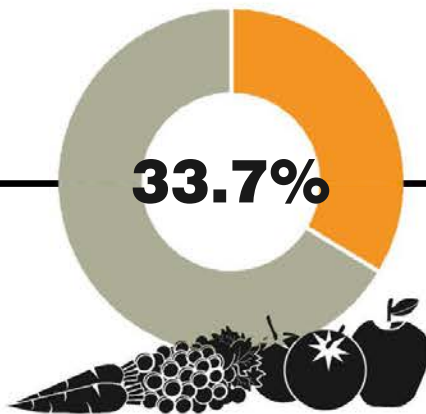
Percentage of adults who consume 1+ sugary drinks daily



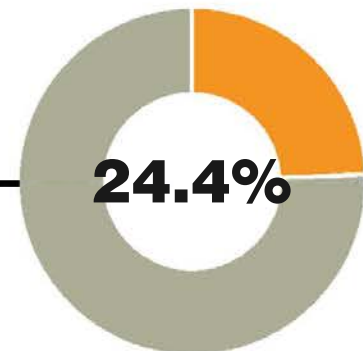
Percentage of adults who consume fast-food 3+ times per week



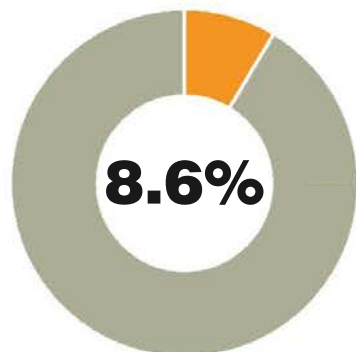
Percentage of adults who eat 5+ servings of fruits and vegetables per day



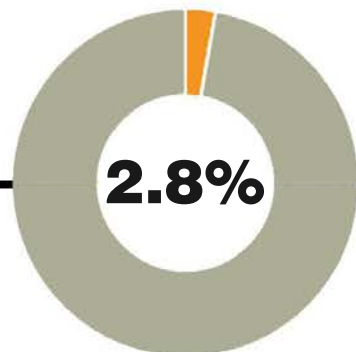
Percentage of adults experiencing food insecurity in the past 12 months



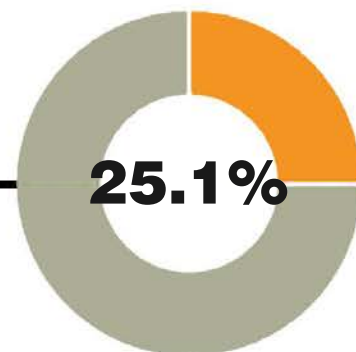
Percentage of adults with physician diagnosed diabetes



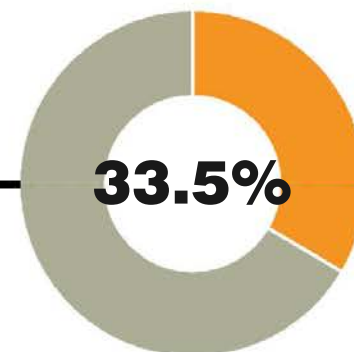
Percentage of adults with physician diagnosed prediabetes



Percentage of adults with physician diagnosed high blood pressure



Percentage of adults with elevated cholesterol



Source: Onondaga County Health Department



Key Issues: Land

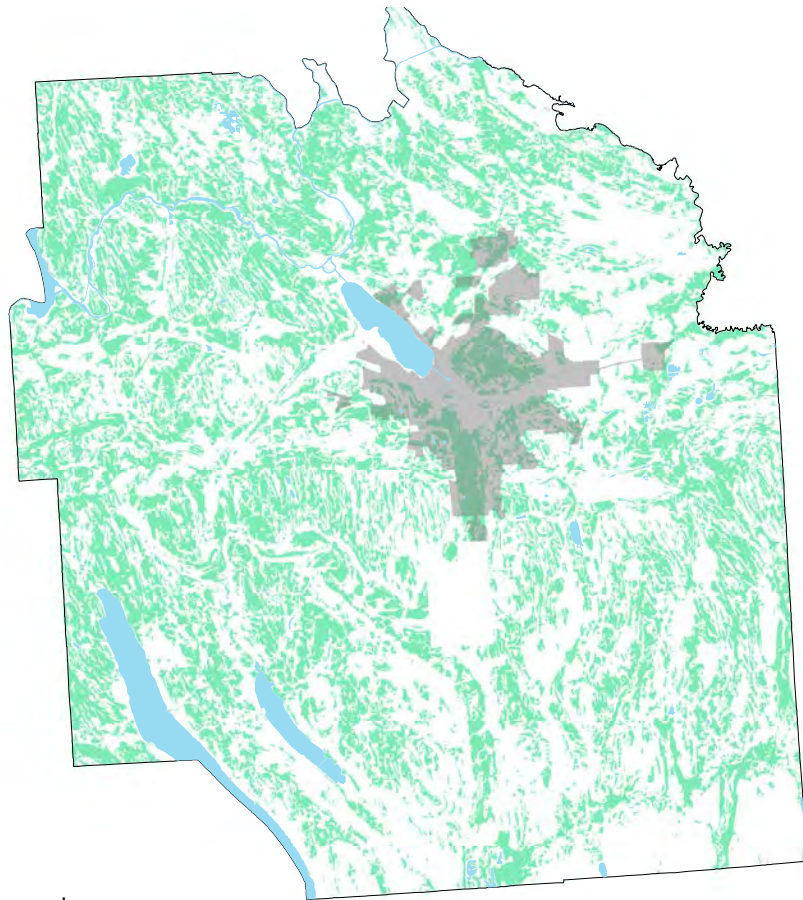
“Its very hard to access even a 20 acre field around here” (Interview, June 2016).

“A critical issue for us is figuring out how to maintain the urban/rural balance. We are an urban county with massive suburban growth over the past 30-40 years” (Interview, September 2016).

“Down here [in the southern part of the county] we don’t see pressures from suburbanization. But the big dairy guys are sucking up all the land. They need it. And they can pay for it” (Interview, April 2017).

Total Prime Farmland with 1950 Urban Area

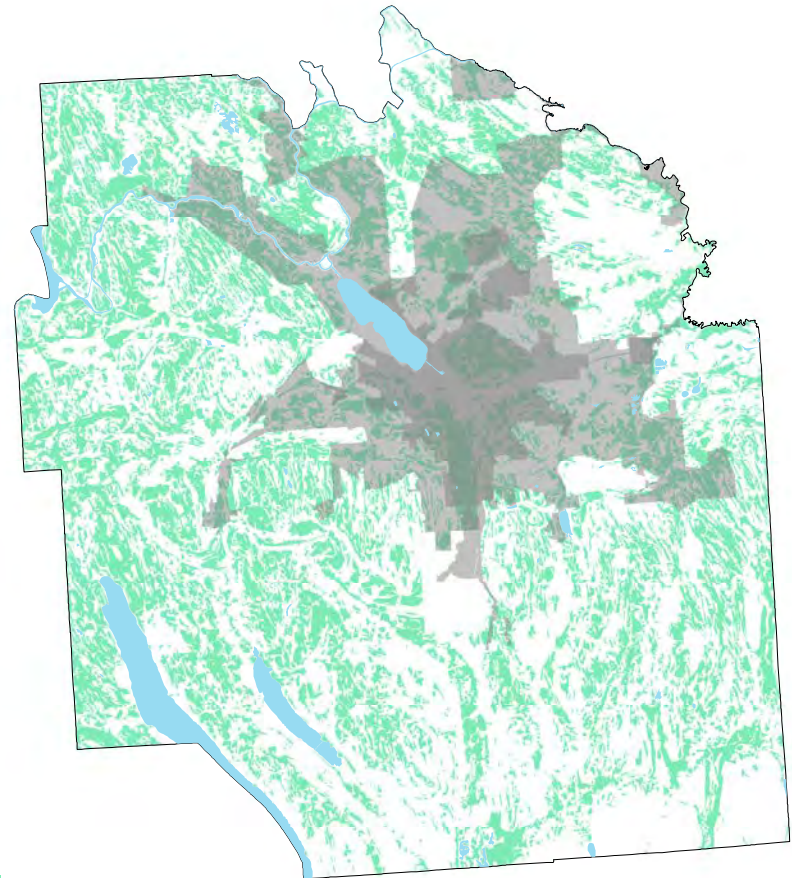
Total Prime Farmland with 1950 and 2010 Urban Areas



*172,111 sq. mi

Prime Farmland
Urban Area-1950

0 3 6 12 Miles



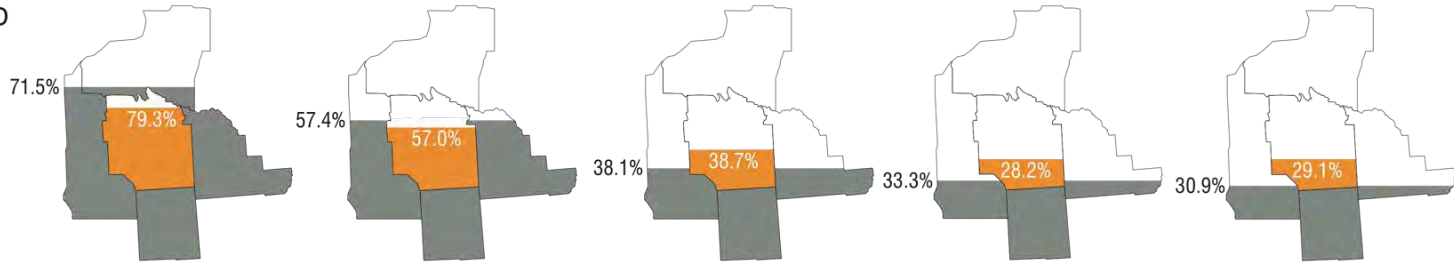
*47,738 sq. mi of developed prime farmland
between 1950 and 2010

Prime Farmland
Urban Area-1950
Urban Area-2010

0 3 6 12 Miles

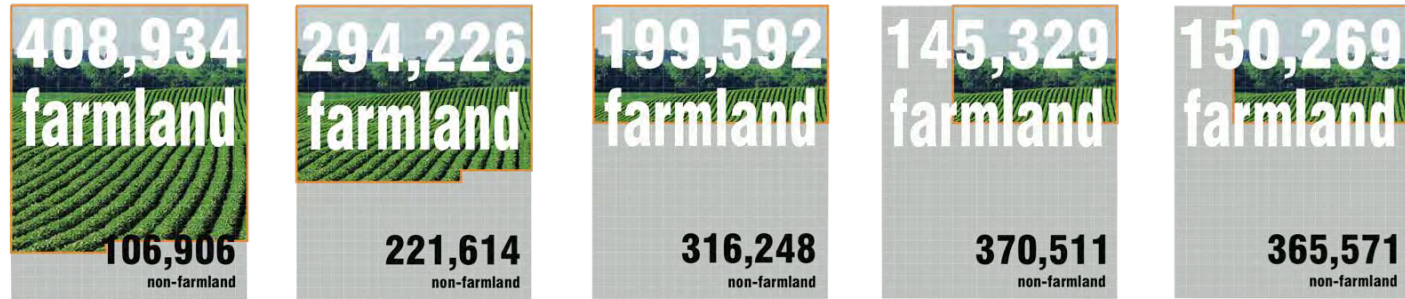
AGRICULTURE AREA

AREA IN FARMLAND
(5 COUNTIES vs.
ONONDAGA)...



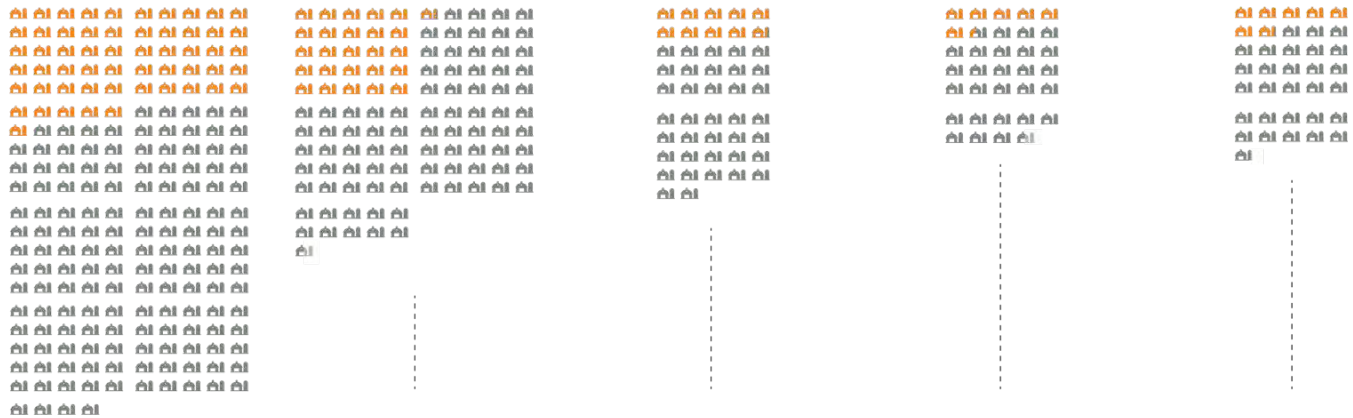
TOTAL ACRES OF
FARMLAND IN
ONONDAGA...

■ = 1000 ACRES
(OUT OF 500,000 ACRES)



NUMBER OF
FARMS (**ONONDAGA** vs.
5 COUNTY AREA)...

🏠 = 100 FARMS

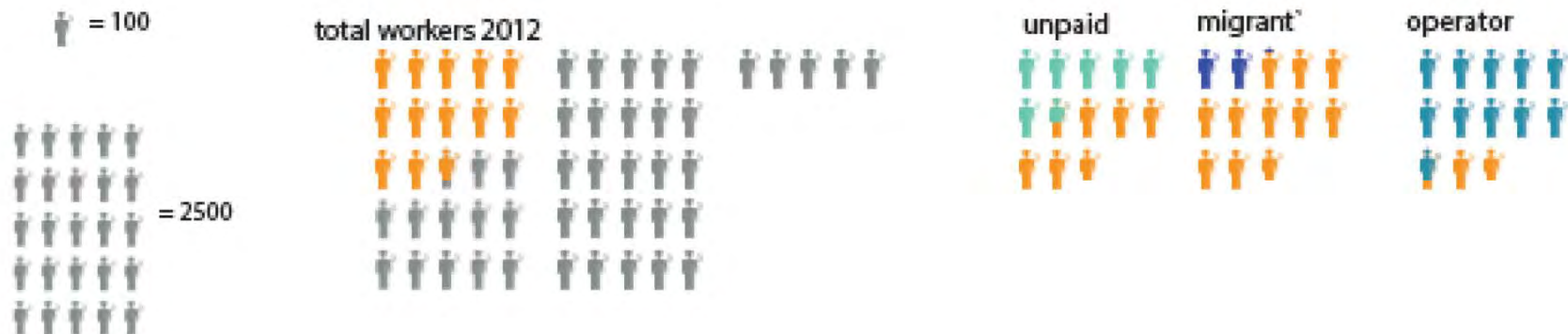


1935 1954 1974 1992 2012

Key Issues: Labor

“We simply cannot produce at a competitive price. Here we have H2A workers. In South Carolina they don’t use H2A. No boarder patrol. Its an ag state and they leave ag alone. They produce a hell of a lot cheaper . . . Labor is a huge issue for New York . . . boarder patrol [points to neighboring train station] they are always parked out over there” (Interview, February 2016).

“And as far as labor . . . it’s really just a huge thing for dairy. There just is no H2A program or any immigrant program for dairy” (Interview, March 2017).



Key Issues: Food Access + Markets

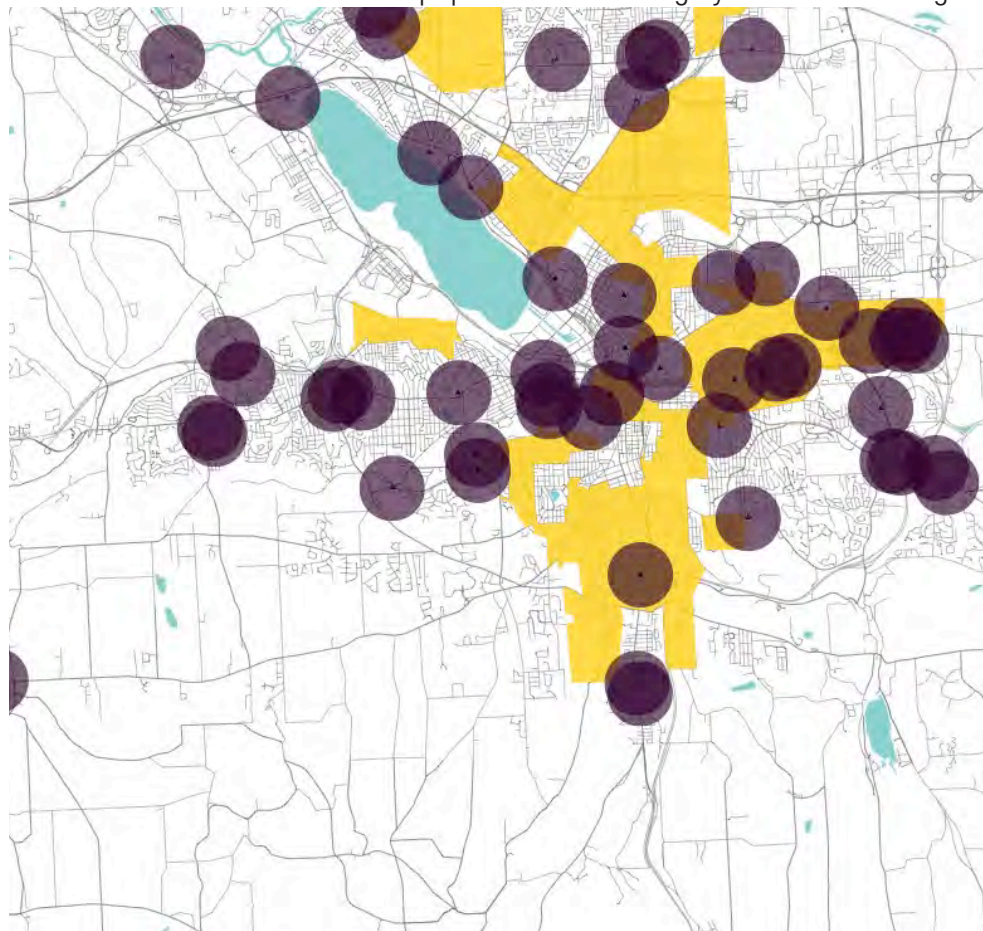
“Price Rite is going to be phenomenally helpful . . . Thinking about a family that doesn’t have access to private transportation, if it is in your neighborhood, in your activity pattern, it’s much easier to go the grocery store” (Interview, July 2016).

“This [store] is a game changer. After next Sunday [April 2, 2017] we will no longer be a food desert” (Interview, March 2017).

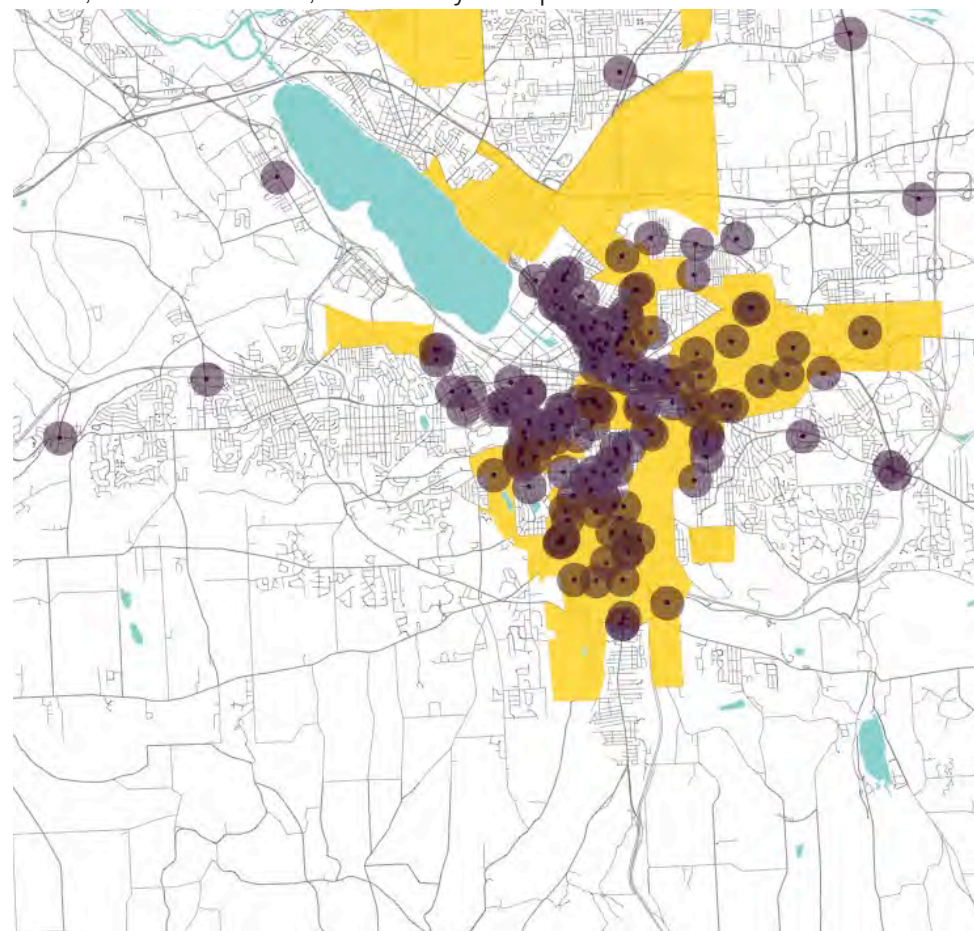
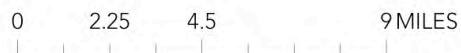
“They have a study. It says the customers come from [elsewhere]. Not a good study . . . We will get killed . . . Originally the store was going to be a community owned coop. I didn’t fear that. It wasn’t a \$17 billion company. They will need to do multiple millions of business per year and it needs to come from somewhere” (Interview, May 2016).



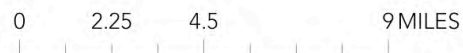
Low food access areas are deprived of affordable fresh fruits, vegetables, and other healthful whole foods within a half mile of the census tract's population. This is largely due to a lack of grocery stores, farmers' markets, and healthy food providers.



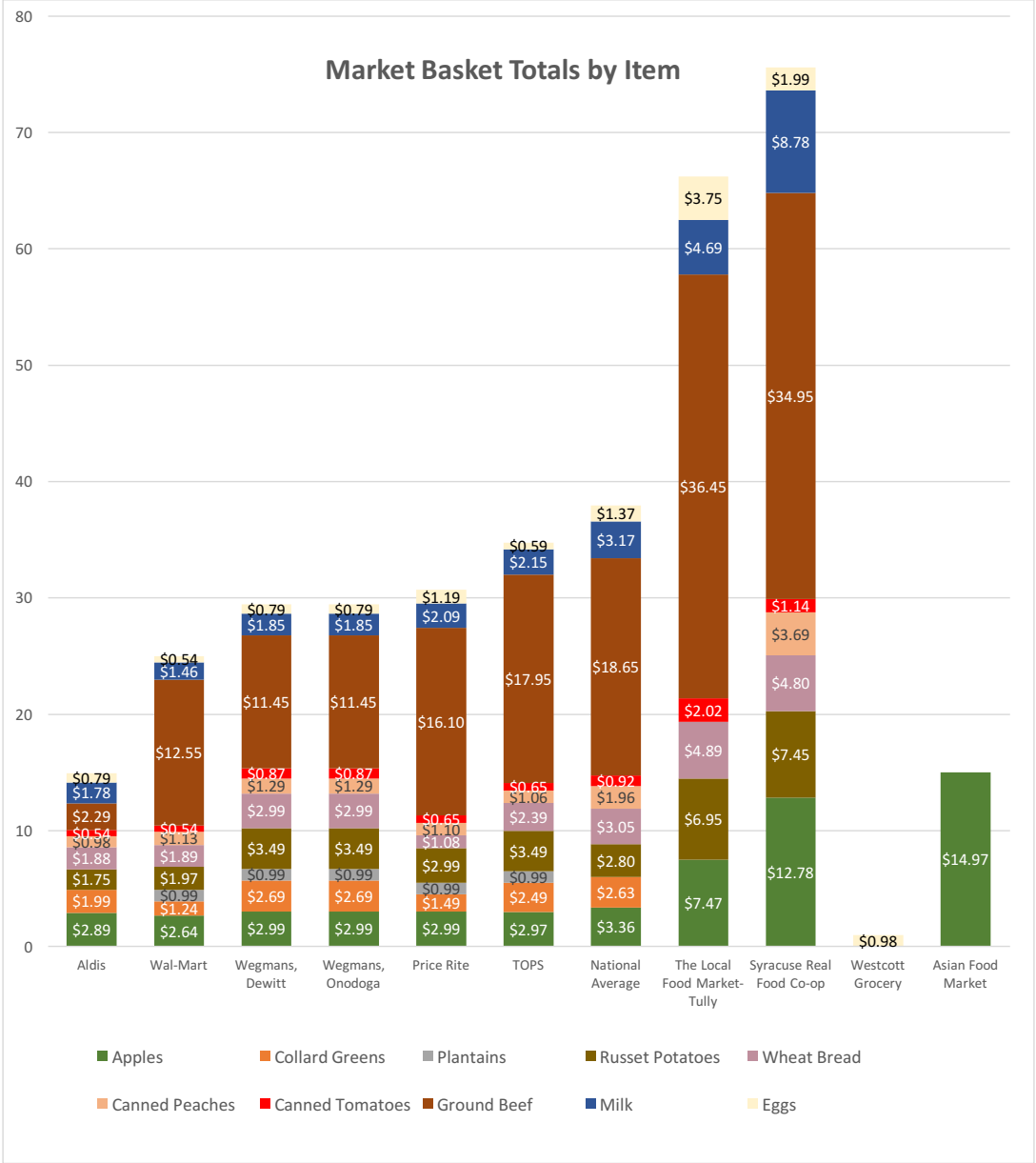
- LEGEND
- ▲ supermarket
 - food desert
 - 1/4 radius



- LEGEND
- corner store
 - food desert
 - 1/4 radius



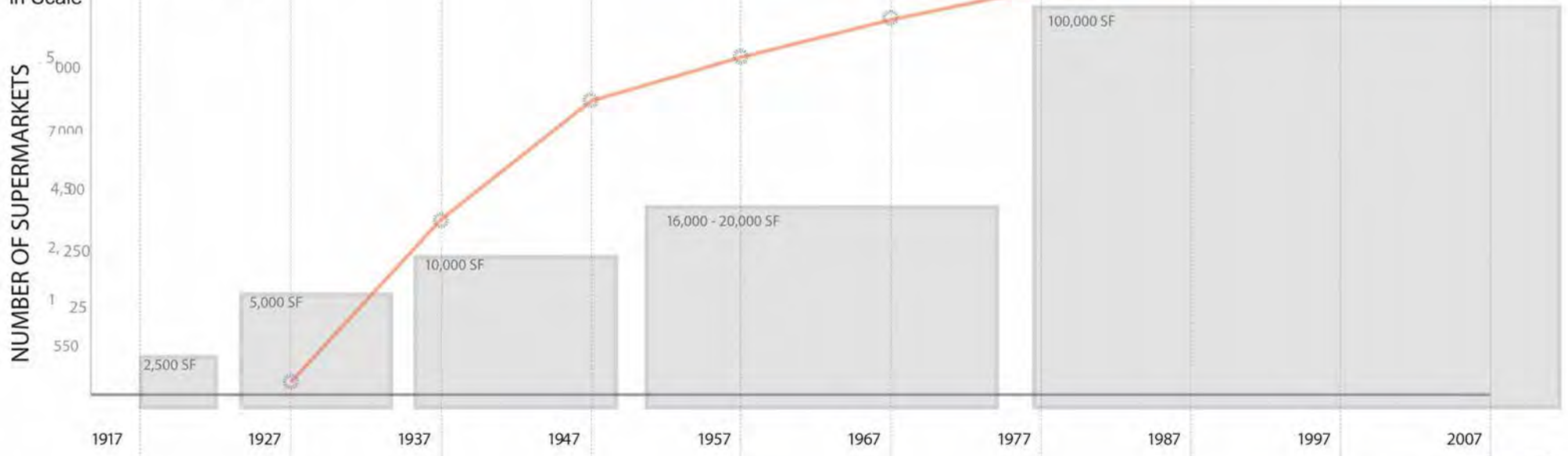
Appendix A: Market Basket Totals of All Stores



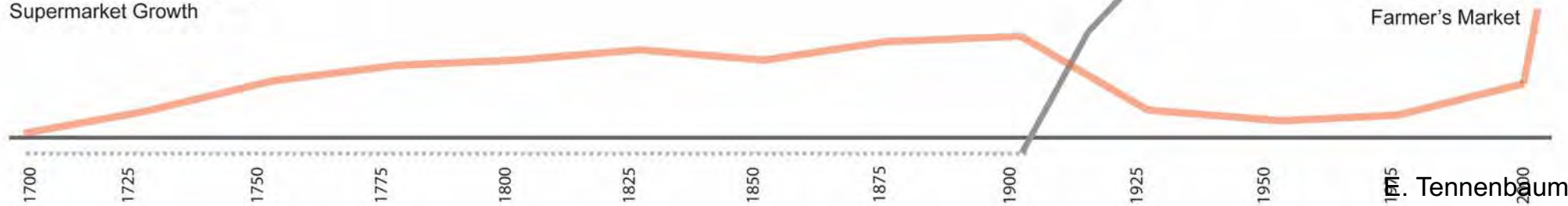


These photos (left) are a scale comparison between a historic shopping district and a contemporary supermarket.

Abundance of Supermarkets and Study of Historic Change in Scale



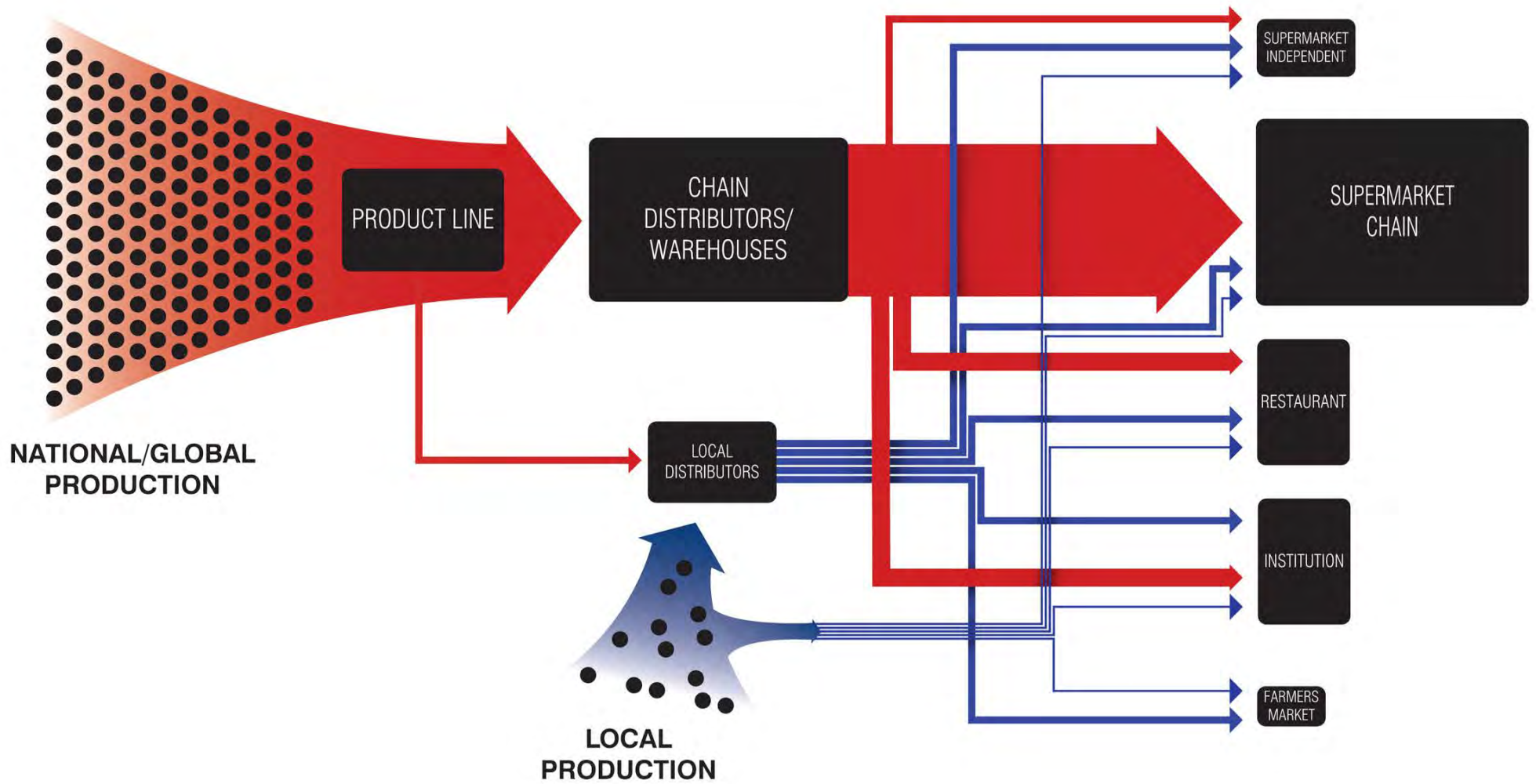
Farmer's Market Growth vs. Supermarket Growth



Key Issues: Regional Distribution

“No ability for smaller producers to go find a store and get product onto the shelves” (Interview, March 2016).

“I think over the last few years there’s been a big increase in the number of farmers markets and small producers in the area. But we may have reached the point where . . . we need to find some other ways beyond that. We are competing for the same base. We need to grow the base of people who want to buy what we produce. And I don’t know how to do that” (Interview, August 2016).



FARM TO MARKET OPTIONS

FARMERS...

DIRECT SALES

	FARM STAND	CSA	FARMERS MARKET	RESTAURANTS	CO-OP/ LOCALLY SUPPORTED GROCERY	SUPER MARKET	AGGREGATOR/ WHOLE SALE	TERMINAL MARKET
								
CONTACT WITH CONSUMER				"TO GET YOUR NAME ON A MENU ... OH LOOK IT THEY'RE HIGHLIGHTED ON THIS MENU. IT ALL CO-PROMOTES."			"I'D RATHER TALK TO PRICE CHOPPER AND WALMART AND TRUCKERS AND WHOLESALERS, TO SELL A WHOLE TRAILER LOAD THAN DEAL WITH THE FARMERS MARKET"	
TIME COMMITMENT/ TIME AND ENERGY					"I CAN'T SPEND TIME AT A MARKET. WEEKENDS ARE PRECIOUS FOR OUR FAMILY."			"CAN'T GET BIG MONEY OUT OF THEM, BUT WILL GET SOLD. UP HERE YOU MIGHT GET \$15 A BOX; [AT TERMINAL MARKET] WHEN I'M ALL DONE WITH FREIGHT AND HASSLE I MIGHT GET \$8..."
SALES/ VOLUME		WE WERE IN 35-40 DIFFERENT GROCERY STORES. IT WAS EXCITING TO WALK IN AND SEE OUR PRODUCTS. THEN WE SAT DOWN AND CRUNCHED THE NUMBERS... IF IT WAS THE PATH WE WANTED TO TAKE WE NEEDED A LOT MORE INVESTMENT IN EQUIPMENT AND INFRASTRUCTURE."		"RESTAURANTS ARE TOUGH. THEY OFTEN WANT SMALL AMOUNTS. OUR TRUCKS HIT THE ROAD AT 9AM... RESTAURANTS SOME OF THEM DON'T OPEN TILL 11AM."	"WE NOW HAVE ENOUGH RETAIL AND WHOLESALE THAT WE DON'T NEED TO DO THE MARKETS. THEY CONSUME A TON OF TIME."			
PRODUCT DIVERSITY						"EVERYDAY THOSE SUPER-MARKETS ARE GOING TO WANT SOME ZUCCHINI."		
SCALE: LOCAL				"THERE'S AN EXPLOSION OF GOOD RESTAURANTS IN THE FINGER LAKES. THEY APPRECIATE THE RELATIONSHIP WITH GROWERS."				
SCALE: REGIONAL								"WHEN I HAVE STUFF LEFT OVER I TAKE IT TO THE TERMINAL MARKETS."
SCALE: GLOBAL								"THEY TAKE COMMISSION AND TRUCKING COMES OUT AND THEY SEND YOU WHATS LEFT."
REGULATIONS			"IF YOU WANT TO GET TO KNOW YOUR FARMERS, THAT'S THE BEST PLACE TO GO [FARMERS MARKET]."			"WE ARE CERTIFIED FOOD SAFETY. IT TOOK ME OVER A YEAR. I HAD TO WRITE THE PLAN AND GOT THE AUDIT... IF YOU DIDN'T HAVE AN AUDIT YOU COULDN'T SELL TO THEM."		

Opportunities

- viability
- access
- coordination

Photo courtesy of Onondaga Historical Association

1. Viability: key opportunities for enhancing viability of CNY food system

- inclusive economic development
- environmental quality
- public health
- cultural resilience



1. Viability

Strategies:

Support the creation of food system infrastructure such as aggregation and storage facilities, commercial kitchens, and value added processing.

Develop skilled, diverse workforce through educational partnerships, and training programs

Indicators:

Number of food industry sector establishments and jobs

Percentage of direct market sales in region

2. Access: several opportunities to improve access

- food
- resource
- information
- economic



2. Access

Strategies:

Continue efforts to increase affordable healthy food options at existing convenience stores

Improve transportation access to a wider variety of retail food options

Create avenues for regional producers to access local markets

Indicators:

Number of residents that live in low access neighborhoods

Number of healthy convenience stores per capita, per neighborhood

3. Coordination: stakeholders in different sectors identify opportunities

- connect productivity of region to local markets
- reconnect consumers to the food system
- link farms to institutions
- planning



3. Coordination

Strategies:

Create food system council to foster on-going collaboration

Improve connections between emergency food providers and food recovery opportunities

Indicators:

Participants engaged in food system coordination

Total food waste diverted toward anti-hunger programs

<https://www.ams.usda.gov/sites/default/files/media/EconomicsofLocalFoodSystemsToolkit.pdf>

The Economics of Local Food Systems: A Toolkit to Guide Community Discussions, Assessments and Choices. USDA Ag Marketing Service. March 2016

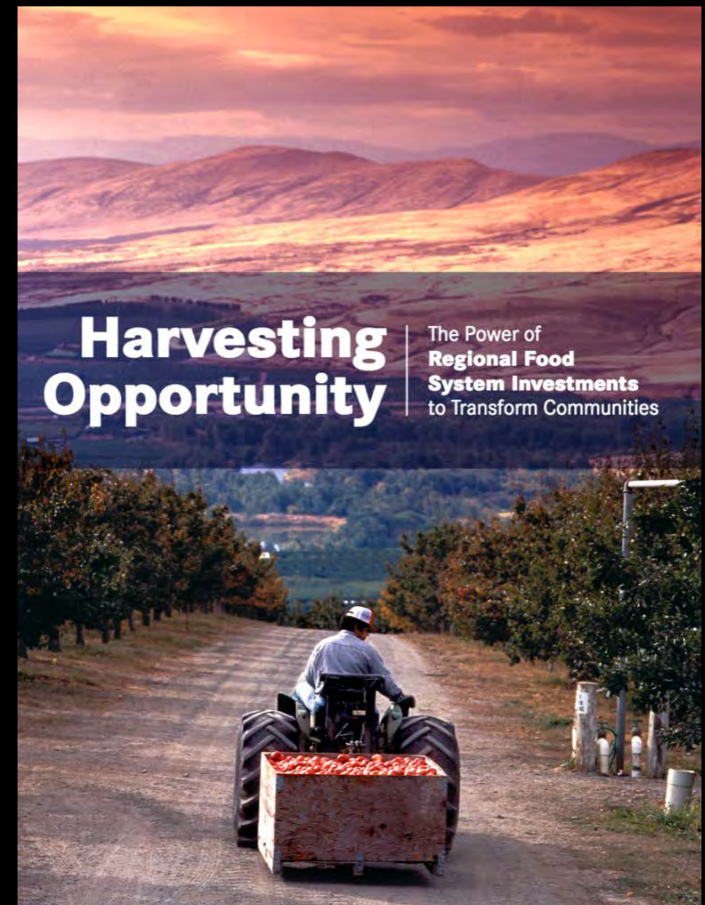
https://www.stlouisfed.org/~media/Files/PDFs/Community-Development/Harvesting-Opportunity/Harvesting_Opportunity.pdf?la=en

Harvesting Opportunities: The Power of Regional Food System Investments to Transform Communities

resources

<http://foodsystemsplanning.ap.buffalo.edu/>

Food Systems Planning and Healthy Communities Lab, University at Buffalo





Thank You